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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/685,265	10/14/2003	Haruhisa Masuda	1376-03	4015

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IP GROUP OF DLA PIPER RUDNICK GRAY CARY US LLP
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PHILADELPHIA, PA 19103

EXAMINER

DUNWOODY, AARON M

ART UNIT	PAPER NUMBER
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3679

DATE MAILED: 04/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/685,265

Applicant(s)

MASUDA ET AL.

Examiner

Aaron M Dunwoody

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 January 2005.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) 23-25 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 January 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-22, drawn to a fuel pipe joint, classified in class 285, subclass 423.
- II. Claims 23-25, drawn to a method of forming a fuel pipe joint, classified in class 29, subclass 890.043.

The inventions are distinct, each from the other because of the following reasons:

Inventions Group II and Group I are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the product as claimed can be made by another and materially different process, which does not apply a joint material between the end portion of a fuel pipe and a fuel pipe connector.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

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Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Newly submitted claims 23-25 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: see above

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 23-25 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Drawings

The drawings were received on 1/28/2005. These drawings are approved.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over US patent 6540264, Yokoyama et al in view of US patent 6258927, Oka et al.

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In regards to claim 1, Yokoyama et al disclose a fuel pipe joint having excellent fuel permeation resistance, using a joint material. Yokoyama et al does not disclose the joint material comprising a polyamide (nylon 9T) consisting of a dicarboxylic acid component and a diamine component, with 60 to 100 mol% of the dicarboxylic acid component being terephthalic acid and 60 to 100 mol% of the diamine component being a diamine component selected from 1,9-nonanediamine and 2-methy1-1,8-octanediamine. Oka et al teach a joint material comprising a polyamide (nylon 9T) consisting of a dicarboxylic acid component and a diamine component, with 60 to 100 mol% of the dicarboxylic acid component being terephthalic acid and 60 to 100 mol% of the diamine component being a diamine component selected from 1,9-nonanediamine and 2-methy1-1,8-octanediamine, to have good flame retardancy and heat resistance, and exhibit good thermal stability and continuous moldability when molded in melt, and it can be molded into good moldings having excellent appearances, especially fine color tone, without giving much gas (col. 1, lines 7-11). As Oka et al relates to polyamide compositions used in connectors, it would have been obvious to one having ordinary skill in the art at the time the invention was made to fabricate the joint with a joint material comprising a polyamide (nylon 9T) consisting of a dicarboxylic acid component and a diamine component, with 60 to 100 mol% of the dicarboxylic acid component being terephthalic acid and 60 to 100 mol% of the diamine component being a diamine component selected from 1,9-nonanediamine and 2-methy1-1,8-octanediamine, to have good flame retardancy and heat resistance, and exhibit good thermal stability and continuous moldability when molded in melt, and it can be molded into good moldings

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having excellent appearances, especially fine color tone, without giving much gas, as taught by Oka et al.

In regards to claim 2, Yokoyama et al in view of Oka et al disclose a fuel pipe joint having excellent fuel permeation resistance, using a joint material comprising a polyamide resin composition comprising from 50 to 99 parts by weight of a polyamide (nylon 9T) and from 1 to 50 parts by weight of another polyamide resin or another thermoplastic resin, the polyamide (nylon 9T) consisting of a dicarboxylic acid component and a diamine component, with 60 to 100 mol% of the dicarboxylic acid component being terephthalic acid and 60 to 100 mol% of the diamine component being a diamine component selected from 1,9-nonanediamine and 2-methyl-1,8-octanediamine.

In regards to claim 3, Oka et al discloses the joint material further comprising areinforcement.

In regards to claim 4, Oka et al discloses the joint material further comprising an electrically conducting filler.

In regards to claim 5, Oka et al discloses the electrically conducting filler having an aspect ratio of 50 or more and a short diameter of 0.5 nm to 10 gm.

In regards to claim 6, Oka et al discloses the joint material further comprising a reinforcement and an electrically conducting filler at a ratio of 1:3 to 3:1 by weight.

In regards to claim 7-11, Yokoyama et al discloses a fuel pipe quick connector comprising a cylindrical body.

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Claims 12-13 and 16-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yokoyama et al in view of Oka et al as applied to claims 1-11 above, and further in view of WO 93/925835, Noone et al.

In regards to claim 12, Yokoyama et al in view of Oka et al disclose the claimed invention including a joint body having first and second end portions, from the first to second end portions of the joint body a continuous hollow portion being formed, the first end portion of the joint body being able to sealingly engage with a first tube, the second end portion of the joint body being able to liquid-tightly engage with a male-type second tube, wherein the joint body is made of the joint material. Yokoyama et al in view of Oka et al do not disclose a resin first tube. Noone et al teach a resin first tube which has been employed in the past (pg. 1, lines 10-12). It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a resin first tube which has been employed in the past, as taught by Noone et al.

In regards to claim 13, Yokoyama et al disclose the first end portion of the joint body being formed as a nipple (14).

In regards to claim 16, Yokoyama et al disclose an O-ring around the hollow portion at the second end portion of the joint body in order to liquid-tightly engage with the male-type second tube.

In regards to claim 17, Noone et al disclose the second tube being a resin tube.

In regards to claim 18, Yokoyama et al in view of Oka et al disclose the second tube having a flange portion and the fuel pipe quick connector further comprising a

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retainer (19) inside the fuel joint body at the second end portion thereof for engaging with and retaining the flange portion of the second tube.

In regards to claim 19, Yokoyama et al in view of Oka et al disclose the retainer being made of the joint material.

In regards to claim 20, Yokoyama et al disclose a fuel pipe component obtained by joining the quick connector with a polyamide resin tube by a welding method selected from spin welding, vibration welding, laser welding and ultrasonic welding.

Note, the method of forming the device is not germane to the issue of patentability of the device itself. Therefore, the limitation, joining the quick connector with a polyamide resin tube by a welding method selected from spin welding, vibration welding, laser welding and ultrasonic welding, has been given little patentable weight.

In regards to claim 21, Noone et al disclose the polyamide resin tube being a multilayer tube comprising a barrier layer.

Claims 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yokoyama et al in view of Oka et al and further in view of Noone et al, and further in view of Patent Application Publication US2003/0137148 A1, Andre et al.

In regards to claim 14, Yokoyama et al in view of Oka et al and further in view of Noone et al disclose the claimed invention except an O-ring around the nipple of the first end portion of the joint body. Andre et al teach an O-ring (52) around the nipple (36) of the first end portion of the joint body (26) to seal the nipple with a flexible tube. As Andre et al relates to fluid connector, it would have been obvious to one having ordinary

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skill in the art at the time the invention was made to provide an O-ring around the nipple of the first end portion of the joint body to seal the nipple with a flexible tube.

In regards to claim 15, Andre et al disclose the nipple of the first end portion of the joint body having a plurality of protruded barbs on an outer peripheral surface thereof.

Claims 1-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over US patent 6540264, Yokoyama et al in view of Patent Application Publication US2003/023008 A1, Uchida et al.

In regards to claim 1, Yokoyama et al disclose a fuel pipe joint having excellent fuel permeation resistance, using a joint material. Yokoyama et al does not disclose the joint material comprising a polyamide (nylon 9T) consisting of a dicarboxylic acid component and a diamine component, with 60 to 100 mol% of the dicarboxylic acid component being terephthalic acid and 60 to 100 mol% of the diamine component being a diamine component selected from 1,9-nonanediamine and 2-methyl-1,8-octanediamine. Uchida et al teach a joint material comprising a polyamide (nylon 9T) consisting of a dicarboxylic acid component and a diamine component, with 60 to 100 mol% of the dicarboxylic acid component being terephthalic acid and 60 to 100 mol% of the diamine component being a diamine component selected from 1,9-nonanediamine and 2-methyl-1,8-octanediamine, to have good flame retardancy and heat resistance, and exhibit good thermal stability and continuous moldability when molded in melt, and it can be molded into good moldings having excellent appearances, especially fine color

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tone, without giving much gas (col. 1, lines 7-11). As Uchida et al relates to polyamide compositions used in connectors, it would have been obvious to one having ordinary skill in the art at the time the invention was made to fabricate the joint with a joint material comprising a polyamide (nylon 9T) consisting of a dicarboxylic acid component and a diamine component, with 60 to 100 mol% of the dicarboxylic acid component being terephthalic acid and 60 to 100 mol% of the diamine component being a diamine component selected from 1,9-nonanediamine and 2-methyl-1,8-octanediamine, to have good flame retardancy and heat resistance, and exhibit good thermal stability and continuous moldability when molded in melt, and it can be molded into good moldings having excellent appearances, especially fine color tone, without giving much gas, as taught by Uchida et al.

In regards to claim 2, Yokoyama et al in view of Uchida et al disclose a fuel pipe joint having excellent fuel permeation resistance, using a joint material comprising a polyamide resin composition comprising from 50 to 99 parts by weight of a polyamide (nylon 9T) and from 1 to 50 parts by weight of another polyamide resin or another thermoplastic resin, the polyamide (nylon 9T) consisting of a dicarboxylic acid component and a diamine component, with 60 to 100 mol% of the dicarboxylic acid component being terephthalic acid and 60 to 100 mol% of the diamine component being a diamine component selected from 1,9-nonanediamine and 2-methyl-1,8-octanediamine.

In regards to claim 3, Uchida et al discloses the joint material further comprising reinforcement.

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In regards to claim 4, Uchida et al discloses the joint material further comprising an electrically conducting filler.

In regards to claim 5, Uchida et al discloses the electrically conducting filler having an aspect ratio of 50 or more and a short diameter of 0.5 nm to 10 gm.

In regards to claim 6, Uchida et al discloses the joint material further comprising a reinforcement and an electrically conducting filler at a ratio of 1:3 to 3:1 by weight.

In regards to claim 7-11, Yokoyama et al discloses a fuel pipe quick connector comprising a cylindrical body.

Claims 12-13 and 16-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yokoyama et al in view of Uchida et al as applied to claims 1-11 above, and further in view of WO 93/925835, Noone et al.

In regards to claim 12, Yokoyama et al in view of Uchida et al disclose the claimed invention including a joint body having first and second end portions, from the first to second end portions of the joint body a continuous hollow portion being formed, the first end portion of the joint body being able to sealingly engage with a first tube, the second end portion of the joint body being able to liquid-tightly engage with a male-type second tube, wherein the joint body is made of the joint material. Yokoyama et al in view of Uchida et al do not disclose a resin first tube. Noone et al teach a resin first tube which has been employed in the past (pg. 1, lines 10-12). It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a resin first tube which has been employed in the past, as taught by Noone et al.

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In regards to claim 13, Yokoyama et al disclose the first end portion of the joint body being formed as a nipple (14).

In regards to claim 16, Yokoyama et al disclose an O-ring around the hollow portion at the second end portion of the joint body in order to liquid-tightly engage with the male-type second tube.

In regards to claim 17, Noone et al disclose the second tube being a resin tube.

In regards to claim 18, Yokoyama et al in view of Uchida et al disclose the second tube having a flange portion and the fuel pipe quick connector further comprising a retainer (19) inside the fuel joint body at the second end portion thereof for engaging with and retaining the flange portion of the second tube.

In regards to claim 19, Yokoyama et al in view of Uchida et al disclose the retainer being made of the joint material.

In regards to claim 20, Yokoyama et al disclose a fuel pipe component obtained by joining the quick connector with a polyamide resin tube by a welding method selected from spin welding, vibration welding, laser welding and ultrasonic welding.

Note, the method of forming the device is not germane to the issue of patentability of the device itself. Therefore, the limitation, joining the quick connector with a polyamide resin tube by a welding method selected from spin welding, vibration welding, laser welding and ultrasonic welding, has been given little patentable weight.

In regards to claim 21, Noone et al disclose the polyamide resin tube being a multilayer tube comprising a barrier layer.

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Claims 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yokoyama et al in view of Uchida et al and further in view of Noone et al, and further in view of Patent Application Publication US2003/0137148 A1, Andre et al.

In regards to claim 14, Yokoyama et al in view of Uchida et al and further in view of Noone et al disclose the claimed invention except an O-ring around the nipple of the first end portion of the joint body. Andre et al teach an O-ring (52) around the nipple (36) of the first end portion of the joint body (26) to seal the nipple with a flexible tube. As Andre et al relates to fluid connector, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide an O-ring around the nipple of the first end portion of the joint body to seal the nipple with a flexible tube.

In regards to claim 15, Andre et al disclose the nipple of the first end portion of the joint body having a plurality of protruded barbs on an outer peripheral surface thereof.

Response to Arguments

Applicant's arguments filed 1/28/2005 have been fully considered but they are not persuasive.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re*

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Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, as *Oka et al* relates to polyamide compositions used in connectors, it would have been obvious to one having ordinary skill in the art at the time the invention was made to fabricate the joint (*Yokoyama et al*) with a joint material comprising a polyamide (nylon 9T) consisting of a dicarboxylic acid component and a diamine component, with 60 to 100 mol% of the dicarboxylic acid component being terephthalic acid and 60 to 100 mol% of the diamine component being a diamine component selected from 1,9-nonanediamine and 2-methyl-1,8-octanediamine, to have good flame retardancy and heat resistance, and exhibit good thermal stability and continuous moldability when molded in melt, and it can be molded into good moldings having excellent appearances, especially fine color tone, without giving much gas, as taught by *Oka et al*; it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a resin first tube which has been employed in the past, by combining *Yokoyama et al* in view of *Oka et al* with *Noone et al*; it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide an O-ring around the nipple of the first end portion of the joint body to seal the nipple with a flexible tube by combining *Yokoyama et al* in view of *Oka et al*, in view of *Noone et al*, in further view of *Andre et al*, as *Andre et al* relates to fluid connector; and as *Uchida et al* relates to polyamide compositions used in connectors, it would have been obvious to one having ordinary skill in the art at the time the invention was made to fabricate the joint (*Yokoyama et al*) with a joint material comprising a polyamide (nylon 9T) consisting of a dicarboxylic acid component and a diamine component, with 60 to 100 mol% of the dicarboxylic acid

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component being terephthalic acid and 60 to 100 mol% of the diamine component being a diamine component selected from 1,9-nonanediamine and 2-methyl-1,8-octanediamine, to have good flame retardancy and heat resistance, and exhibit good thermal stability and continuous moldability when molded in melt, and it can be molded into good moldings having excellent appearances, especially fine color tone, without giving much gas, as taught by Uchida et al.

In response to applicant's argument that the reference cited are nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, see argument presented above.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aaron M Dunwoody whose telephone number is 571-272-7080. The examiner can normally be reached on 7:30 am - 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel P Stodola can be reached on 571-272-7087. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Aaron M Dunwoody
Primary Examiner
Art Unit 3679

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